Project CA003: Archive Report: Lithics

Introduction

There are 15 lithics recovered from the 2017 excavations undertaken by Calluna Archaeology at Cnoc an Fhoimheir, Lodge Farm, Kirkapol, Tiree (James 2018).

Methodology

The methodology, type and attribute terminologies employed for the analysis of the primary and secondary technologies follows the format devised and adopted for the *Southern Hebrides Mesolithic Project* (Finlayson et al. 2000). This augmented the research design used for the analysis of the lithic assemblage from the site at Kinloch on Rùm (Wickham-Jones 1990), derived from earlier terminologies and technological classifications (Tixier *et al*. 1980), and subsequently enhanced (Inizan *et al*. 1999). This format lends itself to the incorporation of later prehistoric forms such as projectile points, 'knives', certain types of scrapers and Post-Medieval gunflints (cf. Wright 2012). The database for the typological and technological analysis of the lithics uses Access™ 2016.

Primary Technology speaks to those initial procedures of the *chaîne opératoire* relating to the choices made in the selection and the obtaining of appropriate raw material, the reduction strategies, the production of blanks, e.g. flakes and blades through to the discard of cores. The knapping reduction strategies undertaken in the past are determined by reference to the detailed analysis of the characteristics and attributes of the cores and debitage products recovered during archaeological fieldwork (Finlay *et al*. 2000a, 553; Woodman *et al*. 2006, 78).

Secondary Technology refers to the later stages of the *chaîne opératoire*, which considers the process of the modification of blanks, their utilisation and discard. Following the removal of a blank from a core, modification is generally achieved by the application of pressure to the edge of the blank. In the case of scrapers, the modified edge functions as the working edge. However, that may not be the case for all retouched artefacts. For example, the modification may be undertaken to facilitate hafting (Finlay *et al*. 2000b, 571; Wickham-Jones and McCartan 1990, 87). Invasive and inverse retouch are generally particular features of secondary modification during the Neolithic and Bronze Age periods (Ballin 1999 and others).

For individual lithics, the first number is the catalogue reference followed by the small finds number, if available.

Raw Materials

All of the lithics are flint that was locally resourced from beach pebbles (cf. Wickham-Jones and Collins 1977, 11), save for a gunflint fragment (008/024).

The flint pebbles at the eastern end of Tiree erode out from the offshore cretaceous chalk sediments (cf. Hall 1991; Wickham-Jones and Collins 1977, 11).

Character

The character of the assemblage is set out at Table 1. 40.00% of the lithics are flakes; chunks 20.00%; tested split pebble 6.67%; blade 6.67%, and modified 26.66%.

Tested Split Pebbles	1
Chunks	3
Flakes	6
Primary	1
Secondary	4
Tertiary	1
Primary regular	
Primary irregular	1
Secondary regular	
Secondary irregular	4
Tertiary regular	
Tertiary irregular	1
Blades	1
Primary	
Secondary	
Tertiary	1
Primary regular	
Primary irregular	
Secondary regular	
Secondary irregular	
Tertiary regular	
Tertiary irregular	1
Modified	4
Total	15

Table 1: Character of the assemblage.

Condition

60.00% of the lithics are patinated; fresh 33.33% and weathered 6.67% (Table 2). The process of patination refers to the change of the original inner colour of raw material to white, which results from the loss of water from the internal crystallite structure of siliceous materials. For example, a predominantly sand matrix will produce white cortication (after Shepherd 1972).

		TSP	Chunks	Blade	Flakes	Modified
Patinated	9	1	1	1	3	3
Fresh	5		1		3	1
Weathered	1		1			
Total	15	1	3	1	6	4

Table 2: Condition of assemblage by lithic type.

Primary technology

All 11 lithics are irregular. There are three flakes produced by a platform reduction strategy (004/008; 006/013; 009/036). The others are bipolar.

The recovery locations of the lithics are:

Trench 1, Context 001: Turf and top soil

- Fresh, tertiary, bipolar chunk (001/001);
- Patinated, secondary, bipolar flake (003/007); and
- Fresh, tertiary, platform flake (004/008).

Trench 2, Context 008: Top soil

- Patinated, primary, bipolar chunk (005/012); and
- Fresh, secondary, platform flake (006/013).

Trench 1, Context 005: underlying top soil

- Patinated, tertiary, platform blade (007/017).

Trench 3, Context 024: layer containing prehistoric pottery underlying top soil

- Weathered, secondary, bipolar chunk (012/024); and
- Fresh, primary, platform flake (009/036).

Trench 1, Context 033: Main fill of cist

- Patinated, primary, bipolar tested split pebble (014); and
- Two patinated, secondary, bipolar flakes (013 and 015).

Secondary technology

The modified lithics comprise two scrapers, a microlith fragment and a gunflint fragment. These artefacts require illustration.

Patinated concave scraper (002/005)

It is from the top soil (001) in Trench 1. A flake with the proximal end missing presenting with a *languette* fracture. There is direct, scalar, semi-invasive retouch to the right hand side creating a concave scraping edge.

Patinated sub-angled scraper (010/045)
This scraper is from the main fill of the cist (033). The primary flake has modification to the distal end extending to both the sides of the flake. The retouch does not extend to the medial. Direct, scalar, semi-invasive retouch creates a sub-angled scraping edge.

Patinated microlith fragment (011)
This fragment of a backed blade microlith is from the lowest fill of the cist (053) underlying the main fill (033). The backed blade is a medial fragment of a narrow blade with direct, sub-parallel, semi-abrupt retouch. There is evidence for the possible use of the microburin technique to remove the proximal end. The break snap at the distal end occurred during manufacture.

Fresh gunflint fragment (008/024)
The Post-Medieval gunflint fragment was recovered from a layer containing prehistoric pottery (033) underlying the top soil (023) in trench 3, and above a layer in a putative tree bowl (036). References to Skertchly (1879) and Ballin (2012) could not assist in determining the type of the gunflint fragment. The black flint is not local and may have originated in either Yorkshire or Lincolnshire, or as ballast flint.

Discussion
It is only to ascribe given periods to two of the lithics in the assemblage. They are the Mesolithic microlith fragment, and the Post-Medieval gunflint fragment. Even so, all of the lithics are residual finds due to unknown taphonomic factors. It is not possible to determine the events leading to their recovery locations.

There was a microlith fragment recovered in the 1940s by George Holleyman from Balephuil Bay along with other artefacts likely to be Mesolithic. The aggregation of finds at this general location by Katina Stentoft with lithics those recovered by the Inner Hebrides Archaeological Project produced a mixed Mesolithic/Neolithic assemblage of 176 lithics (Mithen *et al*. 2007, 530-535). There are a small number of other lithics found during field survey reported in *Discovery and Excavation in Scotland* (cf. Maricevic 2009; Mithen *et al*. 2005).

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